NEW JERSEY TURNPIKE DUMP #5
BETWEEN GILCHRIST AND AETNA STREETS
JERSEY CITY, HUDSON COUNTY

The New Jersey Turnpike Dump # 5 covers 15.8 acres in Jersey City, Hudson County. The site, which is divided into three lots is owned by the city of Jersey City and is presently inactive. The city purchased Block 60, Lot 19H from the Lehigh Valley Railroad in 1941 and has leased the property to Greenwich Corporation since 1955. Lots 19Q and 19R were purchased from Central Jersey Industries (aka Central Jersey Railroad) for one dollar in 1982. Central Jersey Railroad had owned these land parcels since 1894.

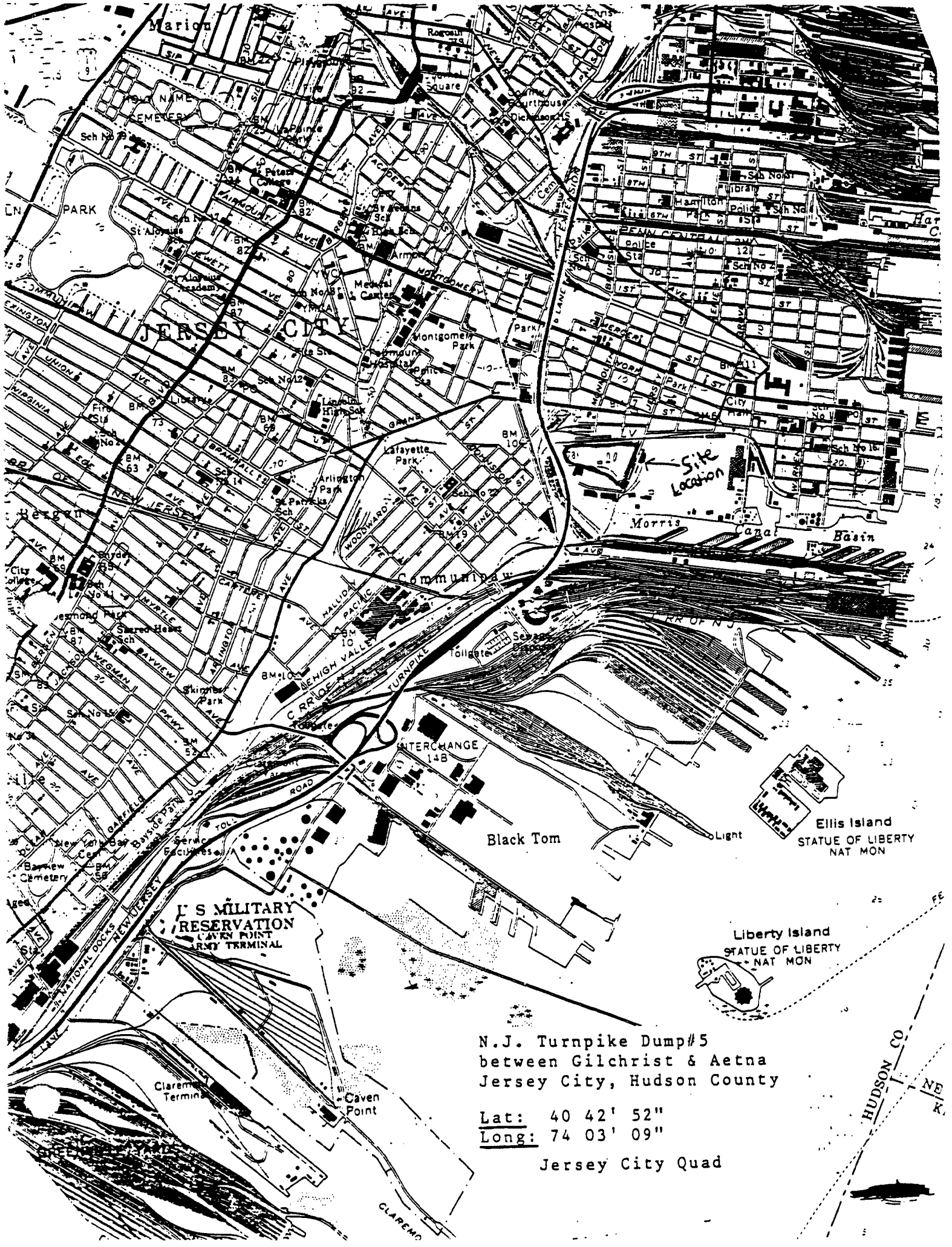
Approximately 500- 1000 drums have been buried on site. Many of these drums are corroded and are spilling powdered dye wastes onto the ground. A one hundred square foot area of of Block 19R is littered with transformer scrap and soaked with oil. According to sampling performed by the Hudson Regional Health Commission in June, 1986, soil in this area is contaminated with polychlorinated biphenyls (PCB's). Additional sampling was performed in Lot 19H by the Division of Waste Management - Metro Field Office in November 1986. These tests revealed contamination of soils with high levels of heavy metals. Potential exists for contaminated runoff from the site to enter the adjacent wetlands and Morris Canal Basin. Drinking water supplies are not threatened as the ground water in the area is not used for potable purposes.

In 1981, the Jersey City Health Department ordered Central Jersey Industries to clean up their portion of the site. A clean up contractor was selected but the project was cancelled when Jersey City acquired the property. A site study completed for the the city found no major problems, however visibly contaminated areas were not sampled. In July, 1986 the Division of Hazardous Waste Management- Metro Field Office ordered Jersey City to secure the site until such time that a remedial action plan could be devised. A preliminary site reconnaissance has revealed that site security measures have not been taken. A DHWM enforcement action calling for subsurface investigation of drums and a groundwater study is pending.

Based on these findings it is recommended that a site inspection and Hazard Ranking scoring be performed by the Bureau of Planning and Assessment if enforcement actions are unsuccessful.

Submitted by:

Leslie Solomon
HSMS IV
May 8, 1987



N.J. Turnpike Dump#5
between Gilchrist & Aetna
Jersey City, Hudson County

Lat: 40 42' 52"
Long: 74 03' 09"

Jersey City Quad

file 09-[illegible]-104

RECEIVED
JUL 8 [illegible]

MEMO

NEW JERSEY STATE DEPARTMENT OF ENVIRONMENTAL PROTECTION

TO NEIL JUDKLE, HSMS II, BUREAU OF PLANNING AND ASSESSMENT

FROM ROBERT ~~BERETSKY, HSMS IV,~~ BUREAU OF PLANNING AND ASSESSMENT DATE 02 JUL 1987

SUBJECT PRESAMPLING ASSESSMENT AT THE NEW JERSEY TURNPIKE DUMP #5 (AKA: JERSEY AVE. DUMP).

On 6/11/87, Richard Gervasio, David Van Eck and Robert Beretsky of the Bureau of Planning and Assessment conducted a follow up presampling assessment at the New Jersey Turnpike Dump #5 (aka Jersey Ave. Dump).

The lot, which is currently owned by the City of Jersey City, is 15.8 acres and consists of Block 60, Lots 19H, 19Q and 19R off of Jersey Avenue (see map). Lot 19H was purchased by the city from the Lehigh Valley Railroad in 1941, and Lots 19Q and 19R were purchased from Central Jersey Industries (Central Jersey Railroad) in 1982. The city has leased Lot 19H to the Greenwich Corporation since 1955. The site was reported to EPA as a potential Hazardous Waste Site in 1981 and an inspection was conducted by the EPA - FIT in June 1981, but no further actions were undertaken. Subsequently, the Jersey City Health Department ordered Central Jersey Industries to conduct a cleanup on Lots 19Q and 19R and a contractor was selected. However, when Jersey City acquired the property in 1982, the cleanup was cancelled. It was also reported that a cleanup of much of Lot 19H had occurred in the past, although it is unknown what cleanup measures were undertaken. In September 1982, a site analysis of Lot 19R was prepared for the city by T and A Engineering. During the site analysis, a subsurface exploration for buried drums was conducted by excavating four test holes. Soil was sampled in each test hole and an observation well was also installed near each hole. All soil and groundwater samples were analyzed for PCBs, and a duplicate sample at test hole 2 and well 3 were analyzed for priority pollutants plus 40. It should be noted that the four sampling locations chosen were not near visibly contaminated soil. Analysis of soil samples revealed contamination with PCBs, various other organic chemicals and heavy metals. Analysis of the groundwater samples also revealed the presence of PCBs and heavy metals as well as 2,4 dimethylphenol; 2,4 dinitrophenol; 4 nitrophenol; bis (2 chloroethyl) ether; dimethylphthalate and other organic chemicals. In June 1986, soil sampled by the Hudson Regional Health Commission revealed the presence of PCBs in the northeast corner of Lot 19R. Also, in November 1986, the NJDEP/Division of Hazardous Waste Management/Metro Field Office conducted soil sampling at the site which revealed contamination with high levels of heavy metals. In July 1986, a Directive was issued to the city by NJDEP to secure the site, however, subsequent inspections by DEP personnel revealed no actions were taken by the city. Recently, a Directive was issued to Jersey City, the Greenwich Company and Central Jersey Industries by the DEP to secure the site, sample drums and submit sampling plans which would help determine the extent of contamination at the site. It should also be noted that numerous fires have occurred in the past including a large tire fire in June 1987, most of which have occurred as a result of vandalism.

Richard Gervasio, David Van Eck and the writer arrived at the site at 1000 hours. Weather conditions at the time of the assessment were sunny with air temperature approximately 75°F and an occational light breeze.

During the presampling assessment, an HNu photoionization detector set at span 2.0 and an OVA flame ionization detector in the survey mode set at span 3.0 were used to determine ambient air and soil gas conditions at the site. Background

readings of 1 ppm as benzene on the HNu and 1 ppm as methane on the OVA were determined at the entrance to the site on the corner of Aetna Street and Jersey Avenue.

A small road off of Aetna Street and Jersey Avenue provides easy access to the site. Solid wastes consisting of household debris, tires, drums and industrial wastes are scattered along both sides of the road. As we proceeded off the access road onto Lot 19R, (area I on map) approximately 10 empty 55 gallon drums of both the metal and fiber varieties, were observed. It was noted that a fire had occurred in this area in the past. It is unknown what types of substances may have been in the drums.

Richard Gervasio, David Van Eck and the writer proceeded further into Lot 19R towards the cinder block building. Most of this area is also cluttered with household debris, tires, drums and industrial wastes. Many drums in this area were broken open and were leaking a powdered purple dye. The ground surface in this area consists of ash and slag material from unknown sources. In the northeast corner of Lot 19R is a large area of oil saturated soil which is void of vegetation. As was mentioned previously, samples from this area by the Hudson Regional Health Commission revealed the presence of PCBs. Soil gas readings on the OVA approximately 30 feet south of this area ranged from background to over 1000 (see map). No soil gas readings above background were noted on the HNu. The OVA was switched to the gas chromatograph mode but only one peak was observed. Therefore, it is believed the soil gas readings in this area could be attributed to methane. Ambient air readings of 4 on the HNu were also recorded in this area.

We proceeded to an area, (area H) approximately 10' x 10' in size, which seemed to have formerly contained standing water. This area was stained with a greenish sludge. Soil gas readings of 1000 plus on the OVA and 7 on the HNu were observed in this area. The OVA was switched to the gas chromatograph mode and a second peak was observed approximately 20 seconds after the column was backflushed. This indicates the presence of other contaminants besides methane. This area is off of the northwest corner of the cinder block building.

We then proceeded to one of the test holes. It is believed this hole corresponds to test hole #4 on the map. The hole was filled with greenish colored water. Soil gas readings at the edge of the hole ranged from 40 to over 100 on the OVA. The OVA was again switched to the gas chromatograph mode and 2 distinct peaks were observed, indicating the presence of other contaminants besides methane. No soil gas readings above background were observed on the HNu in this area. Ambient air readings on the HNu were observed to be 7.

Another area of oil saturated soil (area F) was observed near the remnants of concrete foundations. Also in this area were what appeared to be small transformer casings. No soil gas readings above background were noted in this area.

Richard Gervasio, David Van Eck and the writer then proceeded towards a second test hole believed to be test hole #2. A soil gas reading of 3 on the OVA was noted near the edge of this hole. No soil gas readings above background on the HNu were observed in this area. This hole was also filled with water.

Test holes #1 and #3 were not observed during the inspection. It should also be noted that the observation wells which were inspected during the presampling assessment were not capped or locked.

We then continued west onto Lot 19H. This area is heavily overgrown with weeds and trees. Numerous large mounds (areas A-D) consisting of drums and fill material were observed. Many trees were growing from these mounds indicating the drums were disposed a few years ago. Most of the drums in this area were rusted and broken. Some drums were bulging. One drum with a Monsanto label was also observed. It is estimated approximately 500 drums have been disposed in this area, but the contents of the drums are unknown.

Much of the ground surface on the western portion of Lot 19H was covered with the purple dye. A soil gas reading of 10 on the HNu was observed between two of the mounds of drums. No readings above background were observed on the OVA.

Mill Creek, which is part of the Morris Canal Basin, is adjacent to Lot 19H. A wetlands area exists along the creek and extends onto Lot 19H. Drums were observed in the wetlands area, but the contents of many of the drums are unknown. It was noted that a few of the drums contained the purple dye. It is not believed that Mill Creek was flowing at the time of the assessment but we could not get close enough to the creek to make that determination.

We proceeded to the area (area E) immediately behind the location of the recent tire fire. This area is also void of vegetation. The ground surface was covered with slag, purple dye and various types of solid wastes. A few drums were also observed in this area.

As we proceeded down the access road towards Jersey Ave., various solid wastes were again observed on both sides of the road. Approximately 5 x 55 gallon drums, all without lids, were standing upright along the road. These drums were filled with water and petroleum based substances. The water probably originated from rainfall. Readings taken over the drums with the HNu ranged from background to 18.

Richard Gervasio, David Van Eck and the writer departed from the site at 1130 hours.

It is recommended that the Bureau of Planning and Assessment conduct sampling at the site if Jersey City, Central Jersey Industries and the Greenwich Company do not comply with the recently issued Directives. Because of the past history of fires at the site, and the presence of dioxin forming compounds including PCB's and substituted phenolic compounds, it is recommended that any sampling conducted at the site include dioxin samples. At least one shallow soil sample each (0-6") should be taken in areas E,F and G as designated on the map and analyzed for dioxins. At least one deep soil sample (12-18") should be taken from each area A through H and analyzed for priority pollutants plus 40. Two stream sediment samples, one upstream and one downstream from the site, should also be analyzed for priority pollutants plus 40. At least one sediment sample each should also be taken from test pits 2 and 4 and analyzed for priority pollutants plus 40. A groundwater monitoring program should be implemented to determine the extent of contamination. When the extent of soil and groundwater contamination are determined, cleanup of the site should be initiated by the

responsible parties (current and former owners operators). It is also recommended that the site be referred to the Division of Solid Waste Management for possible enforcement actions against the current and former owners for operating an unpermitted open dump. If the responsible parties cannot fund a cleanup, it is recommended the site be ranked by the Hazardous Ranking System for possible inclusion on the National Priorities List (Superfund). Site security should be initiated as soon as possible to prevent unauthorized access to the site by citizens, and eliminate any further illegal dumping which may occur.

w/Attachment

c: Dave Beeman, Metro Field Office
Richard Gervasio, Bureau of Planning and Assessment
David Van Eck, Bureau of Planning and Assessment

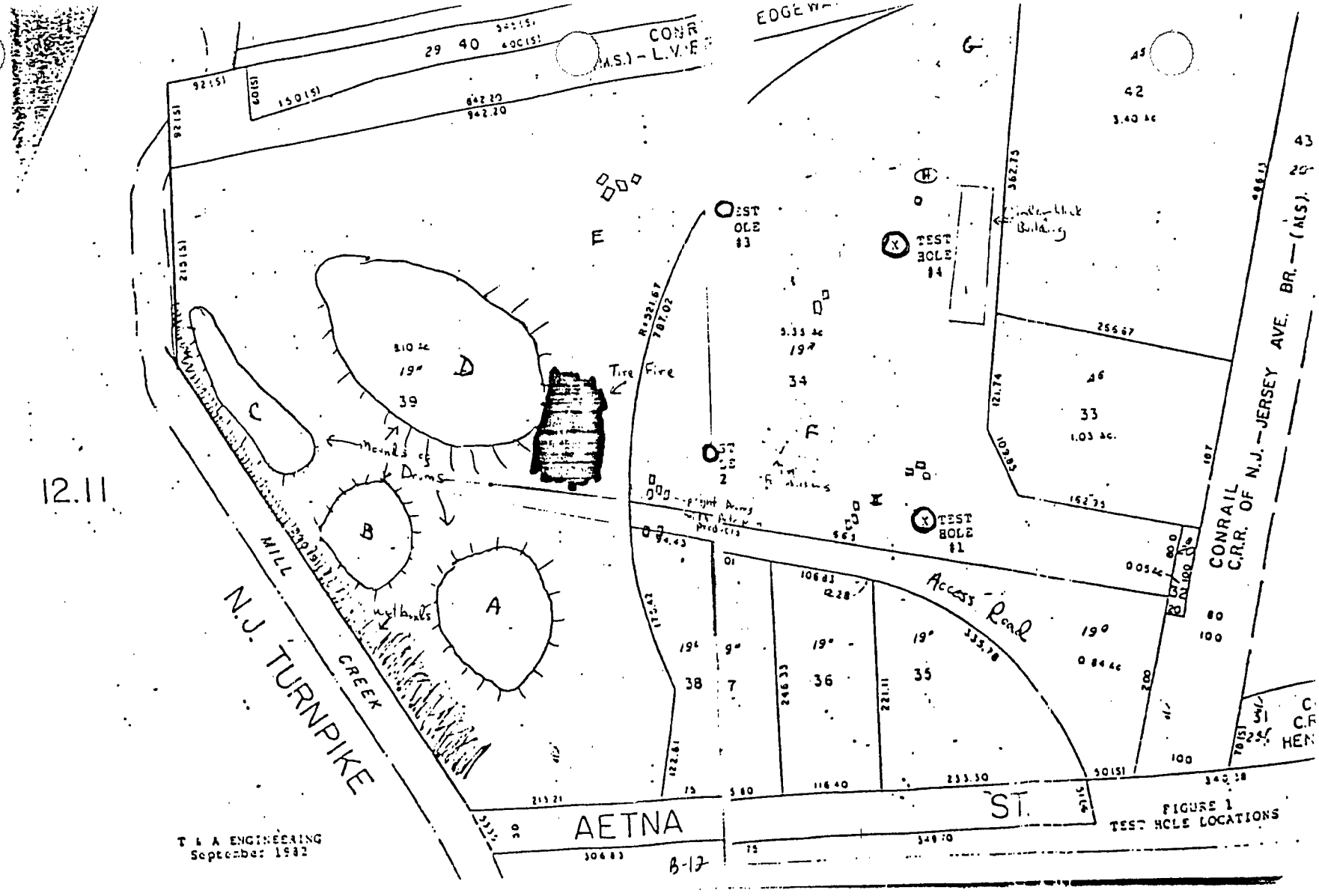


FIGURE 1
TEST HOLE LOCATIONS

State of New Jersey
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF HAZARDOUS SITE MITIGATION
401 E. State St., CN 413, Trenton, N.J. 08625
(609) 984-2902

Anthony J. Farro
Director

JAN 14 1988

M E M O R A N D U M

TO: DAVID J. SHOTWELL, CHIEF
BUREAU OF FIELD OPERATIONS

FROM: GEORGE KING, CHIEF
BUREAU OF SITE OPERATIONS

SUBJECT: JERSEY AVENUE DUMP BRIEF (AKA TURNPIKE DUMP #5)

Enclosed please find the brief for the Jersey Avenue Dump site.

HS202:kc
c: Anthony Farro
Charles DeWeese
Ted Metzger
Stephen Wohleb

SITE LOCATION AND DESCRIPTION

The Jersey Avenue Dump is an open, unsecure fifteen and eight-tenths (15.8) acre track of land located on Jersey Avenue between Gilchrist and Aetna Streets in Jersey City, Hudson County, New Jersey. The site is designated in Jersey City tax records as block sixty (60), lots nineteen (19)-H, nineteen (19)-Q, and nineteen (19)-R. It is bounded on the north by a residential area at an approximate distance of three hundred and fifty (350) feet. Residential areas are located east, west, and south of the site are at a distance of about fifteen hundred (1500) feet.

The soil at the site is majorly fill composed of cinders, bricks, gravel, and is underlain by clay. The fill depth varies throughout the site from about four (4) to fourteen (14) feet.

The area is tributary to Mill Creek and empties into the Morris Canal Basin, which has been included in plans for a major marina project as part of Liberty State Park. Contaminated surface runoff has been observed flowing within the wetlands on site and into the Morris Canal, which feeds into the Hudson River. However, it should be noted that the Hudson's waters are not used for water supply in proximity to the site.

The ground water table is located at a depth of approximately one and one-half (1.5) feet and flows in a southeasterly direction. The permeability of the unsaturated zone is at a rate between $1x10^{-6}$ and $1x10^{-3}$ centimeters per second (cm/sec). The permeability of the underlying bedrock is at a rate between $1x10^{-4}$ and $1x10^{-2}$ cm/sec. Although it is not unreasonable to expect the presence of pollutants in the ground water, it should be noted that the aquifer does not service any potable water source.

SITE HISTORY

Block sixty (60), lot nineteen (19)-H was conveyed to the Lehigh Valley Railroad from the Central Valley Railroad in 1930. In 1941, Lehigh Valley Railroad conveyed ownership to Jersey City. Jersey City leased the property to Greenwich Corporation in 1955 (the lease expired at the conclusion of 1987). In 1894, block sixty (60), lot nineteen (19)-Q and nineteen (19)-R was conveyed to Central Jersey Railroad, which later was known as Central Jersey Industries (CJI). In 1984, block sixty (60), lot nineteen (19)-Q and nineteen (19)-R was conveyed to Jersey City for the sum of one (1) dollar.

Early in 1981, the hazardous conditions at the Jersey Avenue Dump were reported to the Environmental Protection Agency (EPA). EPA visited the site for inspection purposes in mid 1981, however no further action precipitated from the visit. Concurrently, the Jersey City Health Department ordered CJI to remediate that portion of the site that the company had occupied. CJI selected a remediation contractor but did not engage the company for service, as property ownership was conveyed to Jersey City.

In September of 1982, Jersey City procured the services of T and A Engineering, 202 12th Street, Piscataway, New Jersey, in an effort to ascertain the extent and degree of contamination at the Jersey Avenue Dump. The results of the study indicated that there were no real areas of concern at the site, however, records indicate that T and A did not address drum sampling, nor was there any sampling of soil or water near obvious areas of contamination. Jersey City scheduled the site for cleanup in the spring of 1983 in preparation for a commercial development project, however the cleanup never commenced.

In April of 1986, the Hudson Regional Health Commission officially filed an incident notification report with the New Jersey Department of Environmental Protection (NJDEP). Consequently in June of 1986, the Division of Hazardous Waste Management (DHWM), Bureau of Filed Operations (BFO), investigated this site and requested that a directive letter be issued for various violations. The following month, the DHWM, BFO, recommended that Jersey City secure the site against access to the general public. As of this time, Jersey City has yet to take appropriate measures to secure the site.

On May 18th, 1987 the NJDEP issued directive letters to the following three (3) companies: the City of Jersey City, Central Jersey Industries, and the Greenwich Company. As of this date, there has been no progress in site remediation as a result of the above directive correspondence.

CURRENT STATUS

During the month of October, DHWM, BFO, recommended that the Jersey Avenue Dump be referred to the Division of Hazardous Site Mitigation (DHSM) for remedial action. In an effort to determine an overall estimate of the existing physical conditions, a site visit was arranged between representatives from the DHSM, Bureau of Site Operations (BSO), and DHWM, BFO.

On November 19, 1987, Ted Metzger, Assistant Bureau Chief, BSO, and Stephen Wohleb, On-Scene Coordinator, BSO, met with David Beeman, Metro Spill Supervisor, BFO, at the subject site. The site visit began at 9:27 a.m. under clear skys with a temperature of 50°F.

The site entrance road is fenced with a locked gate, however access may be gained by walking (or driving an off-road vehicle) to either end of the fencing (end to end, approximately forty (40) feet). The site is littered with various types of solid waste that has accumulated from many years of illegal dumping. There is several areas where the soil is stained with an oil-like substance. Of note in these areas is the presence of transformer scrap and debris. Additionally, there are several pits of standing water with oil/petroleum scums on the water surface. Scattered throughout the site are groups of corroded fifty-five (55) gallon drums. Many of these drums are leaking or have leaked there contents onto the soil surface. Some contain a blue/purple powdered dye waste while others contain a black petroleum based liquid waste. In addition to surface drums, there are many soil covered mounds, with an occasional drum protruding through the surface, suggesting the existence of significant sub-surface drum impoundments.

CONCERNS/RECOMMENDATIONS

The following list highlights those areas of concern by BSO:

1) There have been several refuse fires at the site. Refuse fires present the possibility for air contamination (dioxin combustion products) when refuse covered with transformer oil is burned.

2) Exposed powdered waste may migrate as airborne particulates.

3) Direct contact exposure potential is high as Jersey City residents, as well as wild and domestic animals, occasionally traverse the property.

4) Surface runoff to adjacent wetlands and the Morris Canal Basin presents the potential for food chain contamination.

5) Recent sampling performed by the DHWM, Bureau of Planning and Assessment, indicates the presence of heavy metal contamination.

The presence of numerous sub-surface drum impoundments suggests the potential for a significant quantity of waste. The amount of waste, in conjunction with the concerns highlighted above, warrant appropriate attention and action. It is therefore recommended that all possible enforcement actions be exhausted under the guise of the latest directive correspondence. It is also recommended that the site be scored by the Hazard Ranking System for possible inclusion on the National Priority List. Once ranked and all existing enforcement activities exhausted, the site should be referred through normal channels as a publicly funded site for remediation.

HS202:kc

U.S. ENVIRONMENTAL PROTECTION AGENCY

POLREP

DATE: June 28, 1991

FROM: Gad W. Tawadros, OSC
Removal Action Branch

RECEIVED
AUG 07 1991

TO: C. Sidamon-Eristoff, EPA
W. Muszynski, EPA
K. Callahan, EPA
G. Pavlou, EPA
R. Salkie, EPA
U. Zachos, EPA
LEPC
ERD, Washington (E-Mail)
A. Schiff, NJDEP
M. Greenwald, NJDEP
G. Garetano, Hudson Regional Health Commission
F. Tangorra, Army CENAD-CO-CE
B. Kearns, Jersey City Engineers Office
TAT

SUBJECT: Turnpike Dump No. 5 site, Jersey City, Hudson County, New Jersey

POLREP:	POLREP 11
INCIDENT NAME:	Turnpike Dump # 5, Jersey City, NJ
SITE/SPILL NO.:	6A
POLLUTANT:	Volatile Organics and Unknowns
CLASSIFICATION:	High
SOURCE:	Abandoned Dump
LOCATION:	Jersey City, New Jersey
AMOUNT:	Unknown
WATER BODY:	Mill Creek, a tributary of the Hudson River

1. BACKGROUND:

The Turnpike Dump # 5 site is located near the intersection of Jersey Avenue at Aetna Street in Jersey City, Hudson County. The sixteen-acre site is currently owned by the city of Jersey City and was formerly owned by the Lehigh Valley Railroad and Central Jersey Industries.

Large quantities of wastes are dispersed throughout the site including 55-gallon drums, transformer scraps, construction rubble, and household debris. Many of the estimated 2,000 to 3,000 drums on site are buried within large mounds of debris and earth. Approximately 2,000 drums are visible throughout the site and are corroded or split open, leaking their contents on the ground. The visible drums, located during brush clearing operations, appeared to contain powdered dyes, sludges and liquids.

Since there are no effective security measures at the site, the area is frequented by vagrants. Numerous fires have occurred at the site, routinely exposing fire fighters to suspected hazardous substances. The site is located within one quarter mile of the densely populated downtown Jersey City.

In May 1987, directives were issued by the New Jersey Department of Environmental Protection (NJDEP) to the city of Jersey City and the former owners and operators at the site to secure the site, sample drums and submit sampling plans to determine the extent of contamination on site. Subsequent inspections by the NJDEP revealed hazardous conditions continued to persist at the site.

On October 27, 1987, soil samples were collected throughout the site by the NJDEP under the CERCLA PA/SI program. The results of the sample analyses confirmed that the soil was contaminated with pesticides, PCBs and a variety of flammable solvents.

On Wednesday April 10, 1991, the U.S. Environmental Protection Agency (EPA) and the EPA Technical Assistance Team (TAT) responded to a fire at [redacted]. The fire consumed partially buried drums, tires and other solid waste debris. After being briefed by the state and local fire and health officials, the EPA determined that an emergency removal action was warranted. Once the fire was extinguished, the EPA and TAT air monitored, using Dreager tubes and direct reading instruments, in addition to collecting two air samples, using Gillian pumps and charcoal tubes. No readings above background were noted during air monitoring operations. Analysis of the charcoal sample tubes reported benzene concentrations of 50-60 ppb. The following day, water and wipe samples were collected on site, downwind from the location of the fire. The samples were analyzed for dioxin, herbicide and PCB/pesticides and the results showed concentrations below the method detection limits.

2. ACTIONS TAKEN:

ERCS installed a high visibility fence at the periphery of the staging area to separate it from the rest of the site. ERCS began collecting information from legible labels on cylinders and drums already located. ERCS continued segregating tires and debris as well as cutting vegetation along the access road.

On June 26, 1991, an empty drum was found with labels, which may assist EPA in locating a PRP for the site to help in recovering part of the costs for the clean up operations. The label information, along with a copy of the finalized surveyor report was sent to the EPA Office of Regional Counseling.

Since high levels of lead contamination were detected around the security guard command post and the portable toilets, the ERCS contractor was instructed to relocate these facilities to a "cleaner" area. Both facilities were relocated to an area between the command post and the transition building, west of the fence line.

On June 27, 19 , the EPA/TAT response te completed field screening the soils in the former staging area using the XRF. The screening verified the pattern of increasing levels of lead contamination as the continuous lead smelting operation was approached. A maximum reading of 29,200 ppm of lead was obtained at about 30 linear feet west of the smelting facility. High concentrations of lead were detected under the EPA command post also, but not in the areas covered with stone.

On June 28, 1991, TAT performed field screening tests, utilizing the Chlor-n-Soil test kits, to determine the level of PCBs in the soil. This test detects chlorinated organic compounds. Four soil samples were screened with this test. The first sample was obtained from the soil removed during the installation of a light pole near the guard shack. A second soil sample was obtained from a stained area, located approximately 50 feet southeast of the first sample point. The third soil sample was composited from nine grab samples obtained from the surface of an 8 feet by 12 feet stained area. The fourth and last sample was composited from eight grab samples obtained from the area between the OHM and EPA/TAT trailer, at approximately 15 feet west of the fence line. According to the tests, all but the fourth sample contained more than 50 ppm chlorinated organic compounds.

In search for a "clean" area to relocate the command post, EPA/TAT surveyed a 15,000 square foot area, west of the fence line. A trend of decreasing lead concentrations was found as the survey proceeded west and southward from the command post. EPA/TAT located an area of reduced lead concentrations during the survey and suggest this area as a new location for the office trailers. The ERCS contractor will take action to limit the airborne migration of lead from areas of high lead contaminaton.

A report detailing the cost of each of the activities performed at the site since April 10, 1991 was submitted to the EPA Removal Action Branch.

3. FUTURE ACTIONS:

A. ERCS will continue drums and debris segregation and vegetation cutting activities.

B. A plan of action to address the lead contamination is under consideration.

C. Analysis of soil samples will be performed to verify the results from screening activities.

09-06-104

U.S. ENVIRONMENTAL PROTECTION AGENCY
POLLUTION REPORT

I. Heading

Date: January 3, 1992

From: Gad W. Tawadros, OSC, USEPA Region II
Removal Action Branch

To: C. Sidamon-Eristoff, EPA
W. Muszynski, EPA
K. Callahan, EPA
G. Pavlou, EPA
R. Salkie, EPA
G. Zachos, EPA
M. Pane, EPA
ERD, Washington (E-Mail)
A. Schiff, NJDEP
M. Greenwald, NJDEP
G. Garetano, Hudson Regional Health Commission
F. Tangorra, Army CENAD-CO-CE
B. Kearns, Jersey City Engineers Office
D. Katz, Historic Paulus Hook Assoc.
USEPA TAT

Subject: Turnpike Dump No. 5 site, Jersey City, Hudson County, New Jersey

POLREP: Thirty-one (31)

II. Background

SITE NO. :	6A
DELIVERY ORDER No.:	7445-02-096
Response Authority:	CERCLA
NPL Status :	Currently not on the NPL
State Notification:	NJ DEPE Notified
Action Memorandum:	Current approved on September 26, 1991
Start Date:	April 10, 1991

See previous POLREPS for background information

III. Response Information:

A. Planed Removal Actions:

The activities proposed under this removal action are to overpack, restage, sample and analyze the contents the approximately four hundred badly deteriorated drums found on the surface of the site. Additionally, the cylinders and 19 storage tanks will be stabilized, sampled and analyzed. The removal and disposal of combustible materials such as tires and wood will be included in this proposed action.

B. Situation:

1. Current Situation

The first phase of the removal action has been completed. This phase consisted of the installation of a site perimeter fence, segregation of tires, wooden material, scrap metal and drum carcasses on Jersey City property, removal of combustible material, categorization, inventory and staging of drums found on the surface, overpacking and staging badly deteriorated drums, construction of fire breaks at strategic points and assessment of further threats from hazardous materials at the site.

The second phase has also been completed. This phase consisted of sampling and analyzing the contents of approximately four hundred drums, cylinders, and storage tanks overpacked and staged during phase I. Additionally, any remaining combustible materials which posed a threat to human health and the environment were removed. Most ERCS equipment has been demobilized. Remaining on site is the command office trailer and site security. EPA and TAT have commenced phase III activities, planning for final transportation and disposal of site wastes.

2. Removal actions to date

Analytical results of composite samples for disposal characteristics have been reviewed extensively by TAT and EPA. TAT condensed the data package into a single chart placed over a poster board, which presented all significant information in an easy to read format. Based on the analytical results, most of the materials may be classified as 'F' and 'D' listed RCRA hazardous wastes. Additionally, there are several other wastestreams, including spent PPE, aqueous liquids, and non-hazardous solid materials.

Research is underway to determine the best disposal method for each wastestream, defining best as cost-effective, environmentally sound, timely and CERCLA approved. The most promising alternative considered to date is the recycling of site wastes as cement kiln fuel. Cement kilns make use of the latent heart available in organic materials to produce high temperatures(>2,450 F) necessary in the production of Portland cement. These high temperatures, along with turbulent mixing conditions and long residence times of the fuel inside the kiln, destroy nearly all hazardous organic materials. Inorganic hazardous materials (metals) are immobilized within the cement or are returned to the kiln through a closed-loop system where they become chemically bonded into the crystalline matrix of clinker, a lava-like mixture of limestone, clay and sand. The remaining inorganic non-hazardous materials (ash) mix with clinker and gypsum to become a structural part of the cement.

Review of documents provided by solicited cement kiln processors indicate that they have appropriate federal and state permits, and are approved to accept the 'F' and 'D' listed RCRA wastes and non-hazardous wastes on site. Approximately 95% of site wastes meet cement kiln fuel requirements of 5,000 BTU/lb or greater heat of combustion and other miscellaneous criteria. Costs for recycling wastes through cement kilns are substantially less than costs for incineration and other disposal methods. Questions remain regarding any necessity for pretreatment, types of packaging, and transportation of the wastes. These issues are presently being discussed with the facilities. It may be necessary to send composite samples to the facilities to confirm acceptability and costs.

Several other disposal methods are also under consideration. Bulk disposal of spent personal protective equipment (PPE) and non-hazardous waste solids in approved CERCLA landfills may be more cost-effective than cement kiln fuel recycling. EPA is awaiting final submission of bids for bulk disposal of wastes from several disposal facilities. The OSC has contacted Joe Bechmiere, director of the Jersey City Sewage Department, to discuss the requirements for disposal of decon wastewater and aqueous liquid wastestream through the Jersey City wastewater treatment plant.

ERCS is continuing to obtain bids for bulk disposal of site wastes, and is preparing a scope of work plan for the bulking of wastes. Bulking will commence using funds designated for phase II activities. Transportation and disposal(Phase III) will begin upon approval of increase of ceiling Action Memorandum and selection and scheduling of disposal facilities. Bulking will begin upon verification of lowest bidder and acceptability of wastes. A meeting is scheduled January 2 between ERCS, EPA and TAT to finalize disposal selection.